



UNITED STATES PATENT AND TRADEMARK OFFICE

UNITED STATES DEPARTMENT OF COMMERCE
United States Patent and Trademark Office
Address: COMMISSIONER FOR PATENTS
P.O. Box 1450
Alexandria, Virginia 22313-1450
www.uspto.gov

APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/734,496	12/11/2000	Brian Feinberg	60136.0128USU2	3605
94140	7590	01/04/2011		
Merchant & Gould - Cox PO Box 2903 Minneapolis, MN 55402			EXAMINER PARRA, OMAR S	
			ART UNIT 2421	PAPER NUMBER
			MAIL DATE 01/04/2011	DELIVERY MODE PAPER

Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

Office Action Summary**Application No.**

09/734,496

Applicant(s)

FEINBERG ET AL.

Examiner

OMAR PARRA

Art Unit

2421

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --
Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 26 October 2010.
- 2a) ☒ This action is **FINAL**. 2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 22-35 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 22-35 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
 2. ☐ Certified copies of the priority documents have been received in Application No. _____.
 3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- 1) ☐ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftperson's Patent Drawing Review (PTO-948)
- 3) ☐ Information Disclosure Statement(s) (PTO/C2.06)
Paper No(s)/Mail Date _____

- 4) ☐ Interview Summary (PTO-413)
Paper No(s)/Mail Date _____
- 5) ☐ Notice of Informal Patent Application
- 6) ☐ Other: _____

DETAILED ACTION

Response to Arguments

1. Applicant's arguments with respect to claims 22-35 have been considered but are moot in view of the new ground(s) of rejection.

Although a new ground of rejection is presented, the examiner believes necessary to address some of applicant's arguments.

Applicant argues that:

"Jahn also fails to disclose, teach or suggest collecting an identity of each of the plurality of remote devices, a device type of each of the plurality of remote devices, a device format supported by each of the plurality of remote devices and a reporting level associated with each of the plurality of remote devices. Jahn does not mention collecting any such information", Remarks section, page 9. To this matter, the examiner respectfully disagrees.

Jahn teaches that the monitoring devices analyze and decide if a fault should be reported. A report and a recommended solution is generated and sent to multiple devices of personnel that could repair the fault (col. 4 line 51-col. 5 line 23; col. 6 lines 4-23 and lines 47-64). The report can be sent directly from the report generation entity or from a centralized console (col. 6 lines 54-64). The system uses a **predetermined** distribution list containing the different devices which could be pagers, email capable, control consoles, etc. From the list, the system is able to recognize which type of device it is, and format the message based on the designated type of the communication device for which it is intended (col. 4 line 51-col. 5 line 23; col. 6 lines 4-23 and lines 47-64).

As discussed in the previous Office Action mailed on 08/03/2010, the 'collecting' term, as disclosed in applicant's specification, refers only to the manually input of information by an operator through a computer interface (Specification, page 26 lines 3-7). In this way, Jahn clearly teaches that the list of the remote devices was previously inputted in the system at some point.

Therefore, the examiner respectfully believes that applicant's invention is covered by the presented references.

Claim Rejections - 35 USC § 103

2. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

3. Claims **22-27, 33, and 35** are rejected under 35 U.S.C. 103(a) as being unpatentable over Terreault (Patent No. 7,254,827) in view of Smyth et al. (hereinafter 'Smyth', Pub. No. 2002/0007492) in further view of Jahn et al. (hereinafter 'Jahn', Patent No. 7,111,205).

Regarding claim 22, Terreault teaches a method for monitoring, operations of a head-end in an information distribution system, the method comprising:

receiving, at a monitor and control unit located status relating to operations of head-end elements providing content to terminals within a coverage area of the head-

end elements **(the computer receives data and notifications from return path RF detectors on the headends, sub-headends, CMTs and other network devices; col. 4 lines 38-49; col. 9 lines 6-44; col. 12 lines 46-61. The return path RF detectors, as well as the spectrum analyzers and the broadband analyzers, col. 13 lines 3-23, are related or are headend elements);**

processing the status relating to the operations of the head-end elements to identify problems associated with the head-end elements and to generate report messages for the off- site personnel based on the identified problems **(Terreault monitors the levels of headend elements and if they pass predetermined threshold levels, alarm messages are sent to remote personnel devices based on the identification of the threshold been exceeded. Terreault receives the readings of the operation of the elements and compares them to the predetermined threshold values (which is processing the received information) and if a problem is identified (if they exceed said predetermined values), a message is generated and sent to the remote devices (Abstract; col. 9 lines 6-43; col. 13 lines 17-56);**

forwarding the processed status from the monitor and control unit to a communication server **(control computer 23 communicates with network management system 103, for a higher level of network operation, col. 12 lines 46-61; col. 13 lines 3-10); and**

sending the processed status received by the communication server to the designated remote devices to present the report messages to the off-site personnel

associated with the designated remote devices for troubleshooting the operations of the head-end elements (**col. 13 lines 23-56**).

On the other hand, although Terreault teaches monitoring headend elements (the computer receives data and notifications from return path RF detectors on the headends, sub-headends, CMTs and other network devices; col. 4 lines 38-49; col. 9 lines 6-44; col. 12 lines 46-61. The return path RF detectors, as well as the spectrum analyzers and the broadband analyzers, col. 13 lines 3-23, are related or are headend elements), Terreault does not explicitly teaches that those elements are used in preparing and delivering content by an in-band delivery system and that the monitor and control unit is remote from at least one head-end and further forwarding the report messages from the monitor and control unit to a communication server for routing to at least one of the plurality of remote devices designated from the plurality of remote devices.

However, in an analogous art, Smyth teaches an interactive television distribution system (100, Fig. 1; [0015]-[0017]), which includes modulators that modulate television data streams in the conventional in-band television spectrum ([0018]; [0019]; [0029]; [0030]). Smyth teaches that the elements of the system, including headends, are monitored by a Session Control Manager (200, Fig. 1) for fault detection (Abstract; [0051]; [0054]; [0055]). Once a fault is detected, the stream being sent is re-assigned and a replacement signal is sent to a server (104; Fig. 1; [0054]) that will send messages to field service personnel to test and replace the faulty modulator or element (Abstract; [0051]; [0054]; [0055]).

Therefore, it would have been obvious to one of ordinary skill in the art at the time of the invention to have modified Terreault's invention with Smyth's feature of monitoring performance of elements used in preparing and delivering content by an in-band delivery system for the benefit of "detecting service affecting failures due to in-band modulators and correct the problem in a manner that is transparent to the costumer", (Smyth: [0053]).

On the other hand, although Terreault and Smyth teaches collecting information about remote off-site devices (Terreault: the computer is programmed for a remote mode in which after receiving status data from the monitored headend, it's able to automatically communicate, through network manager system, with multiple remote devices. The messages go from paging and e-mails; col. 13 lines 23-56. In other words, for the computer to page or email, at least the contact information must have been inputted (collected as described in Specification). Smyth: Abstract; [0051]; [0054]; [0055]), they do not explicitly teach collecting by the monitor and control unit capability information for each of a plurality of remote devices of off-site personnel including an identity of each of the plurality of remote devices, a device type of each of the plurality of remote devices, a device format supported by each of the plurality of remote devices and a reporting level associated with each of the plurality of remote devices.

However, in an analogous art, Jahn teaches a system that automatically reports faults in a network (at least, title, abstract; col. 3 lines 4-30). Jahn teaches that the monitoring server remotely monitors different devices that connect to different computers on the network (210, Fig. 1; col. 3 lines 10-30). Multiple aspects are

monitored such as software and hardware failures and/or traffic statistics like overload conditions (col. 5 lines 37-34). Jahn teaches that the monitoring devices analyze and decide if a fault should be reported. A report and a recommended solution is generated and sent to multiple devices of personnel that could repair the fault (col. 4 line 51-col. 5 line 23; col. 6 lines 4-23 and lines 47-64). The report can be sent directly from the report generation entity or from a centralized console (col. 6 lines 54-64). The system uses a predetermined distribution list containing the different devices which could be pagers, email capable, control consoles, etc. From the list, the system is able to recognize which type of device it is, and format the message based on the designated type of the communication device for which it is intended (col. 4 line 51-col. 5 line 23; col. 6 lines 4-23 and lines 47-64).

Therefore, it would have been obvious to one of ordinary skill in the art at the time of the invention to have modified Terreault's invention with Jahn's transmission of the report through a server or communication entity and keeping record of a list of devices for formatting the message according to capability of the receiving device for the benefit of reducing the task load of the monitoring device and for being able to send clear messages (in the proper format) to the devices that are to receive the report messages.

Regarding claim 23, Terreault, Smyth and Jahn teach further comprising:
receiving a response message at the communication server from the remote devices sent the status from the head-end; forwarding, from the communication server,

the response message to the monitor and control unit; and forwarding the response message, received by the monitor and control unit from the server, to a responsible entity in a targeted head-end, wherein the received response message from the at least one remote device includes a command to adjust a parameter of an operation performed by an element at the targeted head-end (**Terreault: the user can remotely take control of the devices at the headend as a response to the alarms, col. 13 lines 29-50. Following, as stated the flow of communication above -headend communicates to control computer 23, which can control headend devices and communicates with the network manager 103 for a higher level of networking and communication with remote devices- the control signals from the remote device have to follow the same path in opposite direction).**

Regarding claim 24, Terreault, Smyth and Jahn teach further comprising:
receiving indications of error conditions relating to the one or more operations elements of the head-end; (**Terreault: col. 8 lines 13-31; col. 9 lines 6-35**); and
forwarding one or more alert messages to the one or more remote devices in response to receiving the indications (**Terreault: col. 13 lines 23-56**).

Regarding claim 25, Terreault, Smyth and Jahn teach further comprising:
polling a plurality of head-ends for status relating to the operations elements of the head-end (**Terreault: col. 3 lines 42-53; col. 4 lines 38-54**).

Regarding claim 26, Terreault, Smyth and Jahn teach wherein the collected device format supported by each of the plurality of remote devices comprises text, graphics, or a combination thereof (**Terreault: the status messages are sent on text pager or email messages or the trace signals are sent for display if the remote display is for example, an Avatron Spectrum Analyzer; col. 13 lines 35-56. Jahn: col. 6 lines 48-64**).

Regarding claim 27, Terreault, Smyth and Jahn teach wherein status of the elements of the head-end are forwarded to the remote devices in conformance with the indicated reporting level (**Terreault: computer 23 causes alarms only if alarm thresholds are reached, col. 13 lines 17-21; and can send alarm messages depending they type of the alarm, col. 13 lines 23-56. Jahn: the fault is reported depending if it is believed to be of certain level -reportable, or it is only logged if it is not; col. 5 line 37-col. 6 line 15**).

Regarding claims 33 and 35, Terreault, Smyth and Jahn teach wherein at least one of the plurality of remote devices is a wireless device (**Terreault: alarm messages can be sent to pager devices which are wireless devices, col. 13 lines 52-56. Jahn: col. 6 lines 4-15**).

4. Claims **28-32 and 34** are rejected under 35 U.S.C. 103(a) as being unpatentable over Terreault (Patent No. 7,254,827) in view of Jahn et al. (hereinafter 'Jahn', Patent

No. 7,111,205) Smyth et al. (hereinafter 'Smyth', Pub. No. 2002/0007492) in further view of Pandya et al. (hereinafter 'Pandya', Patent No. 6,671,724).

Regarding claims 28-32, Terreault, Smyth and Jahn teach all the limitations of the claims they depend on. On the other hand, although Terreault, Smyth and Jahn teach monitoring status on performance of a headend, he does not explicitly teach monitoring status of other operations performed at the headend related to status for one or more buffers for encoding data, relating to multiplexing, to a particular transport stream and to bit rates for a plurality of data being provided at the headend.

However, in an analogous art, Pandya teaches a method for monitoring from a remote location operations of a headend or server/network resources in a in distribution system (col. 4 lines 40-61). Among the operations monitored by the system: status of one or more buffers used to store encoded data (col. 11 line 24-col. 12 line 29), multiplexing operations (col. 14 line 45-col. 16 line 28), status relating to a particular transport stream (col. 9 line 66-col. 11 line 15) and status related to bit rates of types of data (col. 11 line 36-col. 12 line 29).

Therefore, it would have been obvious to, one of ordinary skill in the art at the time of the invention to have modified Terreault, Smyth and Jahn's invention with Pandya's featuring of monitoring status of the multiple other headend's operations for the benefit of having a more comprehensive and detailed control of the performance of the headends in all their areas.

Regarding claim 34, Terreault, Smyth and Jahn teach all the limitations of the claim it depends on. On the other hand, although Terreault and Jahn teach being able to send messages to pagers, he does not explicitly teach that the remote device is a cellular telephone.

However, in an analogous art, Pandya teaches having cellular telephones as part of the devices that can be a control point or agent (terms given to devices that can monitor or being monitored, respectively; col. 4 lines 30-col. 67).

Therefore, it would have been obvious to one of ordinary skill in the art at the time of the invention to have modified Terreault, Smyth and Jahn's invention with Pandya's feature of having a cellular phone being a device that receives monitoring data for the benefit of having the most common mobile device with graphics, text and even video capability.

Conclusion

5. Applicant's amendment necessitated the new ground(s) of rejection presented in this Office action. Accordingly, **THIS ACTION IS MADE FINAL**. See MPEP § 706.07(a). Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the

shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the date of this final action.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to OMAR PARRA whose telephone number is (571)270-1449. The examiner can normally be reached on 9-6 PM (M-F, every other Friday off).

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, John W. Miller can be reached on 571-272-7353. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

/John W. Miller/
Supervisory Patent Examiner, Art Unit 2421

OP